

ALPHA LISTING OF TEST INFORMATION

ABO GROUPING

Available only to DHEC clinics

Synonyms: Blood grouping

Test Section: Clinical Labs Section, Hematology/ Immunohematology unit, 803-896-0891

Days Test Performed: Monday-Friday

Request Form: DHEC 1336, Test # 70100

Special Instructions: [See Venipuncture procedure Section II, if needed](#)

Specimen & Volume: 5-7 ml. EDTA anticoagulated whole blood **AND** 5-7 ml whole clotted blood

Container: One Lavender Top (EDTA) and 1 Red Top Vacuum Tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7

Methodology: Hem agglutination

Add. Information: Identifies blood as Group A , Group B, Group O, Group AB

CPT Code: 86900

ACANTHAMOEBA CULTURE - See "Amoeba Culture"

ACID FAST BACILLI CULTURE (AFB) - See "Mycobacterial Culture"

ADENOVIRUS CULTURE

Synonyms: Respiratory Virus culture

Test Section: Virology, 803-896-0820/0819

Days Test Performed: Monday-Friday

Request Form: DHEC 1337, Test # 27000

Special Instructions: Collect specimen while patient is acutely ill and febrile
[See viral culture collection procedure, section II](#)

Specimen & Volume: Throat swab, N-P swab, Eye swab, Rectal swab, walnut sized portion of feces, 5-10 ml Urine, 1 ml. CSF, small piece fresh, unfixed Tissue, or 10 ml. EDTA anti-coagulated whole blood

Container: Screw capped tube of viral transport media for throat washing and swabs, (provided on request), clean plastic container for feces or urine, Lavender Top (EDTA) vacuum tubes for blood, and Screw cap collection tube for CSF

Storage/Shipping Temperature: Store in refrigerator Ship cold with cold packs. If held longer than 48 hours, freeze at -70°C and ship on dry ice except for blood. **Blood should not be frozen**

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, section IV](#)

Rejection Criteria, specific: Calcium alginate swab used, specimen not cold on arrival. For universal rejections, see page I-7

ADENOVIRUS CULTURE, Cont.

Methodology: Cell culture; ID by FA

Add. Information: NA

CPT Code: Culture 87252; Identification 87253

AEROBE REFERRED FOR IDENTIFICATION (Bacterial)

Synonyms: Aerobic Culture; Salmonella, Shigella, Campylobacter, Pseudomonas, Streptococcus, etc.; culture for identification

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #51100

Special Instructions: NA

Specimen & Volume: Pure bacterial isolate

Container: Screw-capped tube containing agar slant that will support growth of isolate

Storage/Shipping Temperature: Store & ship at Room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Culture nonviable; culture mixed. For universal rejections, see page I-7

Methodology: Conventional bio-chemicals

Add. Information: NA

CPT Code: 87077

AEROBIC ACTINOMYCETE CULTURE - See "Fungal Culture"

AIDS TESTING - See "HIV"

ALCOHOL SCREEN - See "Drugs of Abuse Screen, Urine"

AMOEBAE CULTURE

Synonyms: Acanthamoeba culture, Naegleria culture

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #41100

Special Instructions: Notify Parasitology lab prior to submission. Protect specimen from cold

Specimen & Volume: 1 ml CSF or small piece of tissue (brain, lung, corneal scrapings)

Container: Sterile, screw-capped tube containing small amount of Page's amoeba saline

Storage/Shipping Temperature: Store and ship at Room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen refrigerated or frozen. For universal rejections, see page I-7

AMOEBAE CULTURE, Cont.

Methodology: Culture and microscopic examination

Add. Information: Culture for the presence of Acanthamoeba or Naegleria

CPT Code: 87181

AMPHETAMINES SCREEN - See "Drugs of Abuse Screen, Urine"

ANAEROBE CULTURE, REFERRED ISOLATE

Synonyms: Anaerobe referred for identification

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #51100

Special Instructions: NA

Specimen & Volume: Pure isolate, 5-8 ml.

Container: Screw-capped tube of Thioglycollate broth. Overlay broth with approximately 3/4 inch sterile Vaseline or vaspar or use anaerobe transport system

Storage/Shipping Temperature: Store and Ship at room temperature

Shipping Description: Infectious Substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Body site not appropriate for anaerobe culture; inappropriate transport; mixed culture; more than 3 different organisms submitted from a single body site. For universal rejections, see page I-7

Methodology: Conventional culture methods and gas liquid chromatography

Add. Information: NA

CPT Code: 87076 and 87143 (GLC)

ANTIBODY SCREEN

This test is only performed as part of the prenatal screen for DHEC clinics

Synonyms: Indirect coombs

Test Section: Clinical laboratories section, immunohematology unit 803-896-0954

Days Test Performed: Monday-Friday

Request Form: DHEC 1336, Test #70200

Special Instructions: Do NOT use serum separator tube; Separate serum from clot. Specimen must be less than 48 hours old when tested [See Venipuncture procedure, Section II, if needed](#)

Specimen & Volume: 5-7 ml blood or 2 ml serum

Container: Sterile RED TOP vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, Specific: Serum separator tube used; specimen too old.

For universal rejections, see page I-7

Methodology: Antiglobulin test

ANTIBODY SCREEN, CONT

Add. Information: Interpretation: Negative- antibody not detected;
Equivocal or positive-Sent to reference lab for confirmation, ID and titer if necessary
CPT Code: 86855

ANTICONVULSANT DRUG MONITORING

This test is only performed for DHEC clinics

Synonyms: Therapeutic drug Monitoring, Antiepileptic drugs

Test Section: Clinical laboratories section, Toxicology unit 803-896-0890

Days Test Performed: Monday-Friday

Request Form: DHEC 1341, Test # 81000

Special Instructions: Testing available for 4 drugs: Phenytoin, phenobarbital, Carbamazepine, and Valporic acid. Order test individually

Specimen & Volume: 3 ml serum. [See Venipuncture procedure, Section II](#)

Container: Sterile RED TOP vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen. [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7

Methodology: Enzyme Immunoassay (EIA)

Add. Information: NA

CPT Code: 80185 Phenytoin; 80184 Phenobarb; 80156 Carbamazepine; 80164 Valporic acid

ARBOVIRUS SEROLOGY

Synonyms: Test includes EEE, WEE, SLE, CAL.and WNV (West Nile virus)

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test # 117

Special Instructions: Paired specimens NOT required [See Venipuncture procedure, Section II](#)

Specimen & Volume: 5 ml blood or 2 ml serum

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7

Methodology: IFA for Arboviruses, EIA for West Nile virus

Add. Information: Titer of < 1:16 is considered negative

CPT Codes: EEE 86652, WEE 86654, SLE 86653, CEE 86651, WNV 86790

ARBOVIRUS DETECTION BY PCR

Synonyms: Arbovirus PCR. Test includes EEE, WEE, SLE, CAL, LAC, and WNV

Test Section: Molecular Epidemiology 803-896-0825

Days Test Performed: Weekly

Request Form: DHEC 1301, Write test requested, e.g., West Nile PCR, in the lower right hand corner

Special Instructions: For testing to be initiated the following information MUST be provided: Date of onset, date specimen collected, and any pertinent travel history or exposure. Specimen must be collected within 10 days following onset of symptoms

Specimen & Volume: 1 ml CSF minimum

Container: Screw capped CSF collection tube

Storage/Shipping Temperature: Store in refrigerator. Ship on wet ice or with cold packs. If shipping, is delayed > 48 hours, freeze at -20°C and ship on dry ice.

Shipping Description: Infectious substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7

Methodology: Real time reverse transcriptase polymerase chain reaction (RT-PCR) is used to detect West Nile virus (WNV), Eastern Equine encephalitis (EEE), St. Louis encephalitis (SLE), and La Crosse. California serogroup is tested using standard RT-PCR.

Add. Information: This test is used to detect the presence of Arboviral RNA in clinical CSF specimens. RT-PCR results are positive or negative for the presence of the Arbovirus

CPTCode: 83890 extraction; 83894 gel electrophoresis; 83898 amplification; 83902 reverse transcriptase

BACTERIAL ISOLATE, REFERRED FOR ID - See Aerobe or Anaerobe referred.

BARBITURATE SCREEN, URINE - See "Drugs of Abuse Screen"

BENZOYLECGONINE - See "Cocaine Screen"

BETA-HEMOLYTIC STREPTOCOCCUS, GROUP A CULTURE

Synonyms: Beta Strep culture; Throat culture; group A strep or *Streptococcus pyogenes* culture

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #50900

Special Instructions: [See culture collection procedure, Section II](#)

Specimen & Volume: One (1) Throat swab.

Container: Culturette tube with transport medium

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen. [See packing & shipping instruction, Section IV](#)

Rejection Criteria, specific: Ampoule in transport tube not crushed

For universal rejections, see page I-7

Methodology: Conventional culture methods

Add. Information: NA

CPT Code: 87070

BETA-HEMOLYTIC STREPTOCOCCUS GROUP B CULTURE

Synonyms: Group B Strep culture, strep vaginal culture, *Streptococcus agalactiae* culture

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #51000

Special Instructions: [See culture collection procedure, Section II](#)

Specimen & Volume: One (1) Swab

Container: Culturette

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen. [See packing & shipping instruction, Section IV](#)

Rejection Criteria, specific: Ampoule in culturette not broken, swab contaminated with feces. For universal rejections, see page I-7

Methodology: Conventional culture methods

Add. Information: NA

CPT Code: 87070

BLOOD LEAD -See Lead, Blood

BLOOD PARASITE EXAMINATION - See “Malaria Smear”

BORDETELLA PERTUSSIS CULTURE

Synonyms: Pertussis, whooping cough; B. pertussis culture; **Test Section:** Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #51000 for Culture; Test #51300 for FA

Special Instructions: [See collection procedure for PCR and culture, Section II](#)

Regan-Lowe medium must be warmed to room temperature prior to inoculation.

Immerse swab into medium immediately after collection. Calcium alginate swab is recommended, but Dacron or Rayon swab is acceptable. DO NOT USE Cotton Swab

Specimen & Volume: Nasopharyngeal swab preferred; Throat swab acceptable.

Container: Regan-Lowe transport tube (Available upon request from BOL Media Section)

Storage/Shipping Temperature: Store and ship at room temperature; If shipping is delayed, specimen may be incubated aerobically at 35°C for up to 48 hours prior to shipping

Shipping Description: Diagnostic specimen. [See packing & shipping instruction, Section IV](#)

Rejection Criteria, specific: Regan-Lowe media not used or media expired; Cotton swab used. For universal rejections, see page I-7

Methodology: Conventional culture methods,

Add. Information: NA

CPT Code: 87070; culture; 87077 ID

BORDETELLA PERTUSSIS DNA BY PCR

Synonyms: Pertussis, Whooping cough

Test Section: Molecular Epidemiology, 803-896-0825

Days Test Performed: Monday-Friday

Request Form: DHEC 1345, Write *Bordetella pertusis* PCR in the “Organisms suspected” box

Special Instructions: Use swab with Dacron or Rayon tip. DO NOT USE cotton or calcium alginate swab.

Specimen & Volume: Two (2) nasopharyngeal swabs (one swab for the right nare and one swab for the left nare. [See collection procedure for PCR and culture, section II.](#)

Container: Sterile 50 ml. polypropylene conical tube or tube provided in collection kit

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs. Specimen must be shipped within 48 hours.

Shipping Description: Diagnostic Specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Cotton or calcium alginate swab used; Specimen not cold on arrival; specimen too old. For universal rejections, see page I-7.

Methodology: Real-time PCR

Add. Information: This test is used to detect the presence of *Bordetella pertussis* nucleic acid (DNA)

CPT Code: 83890 extraction; 83898 amplification

BOTULISM

Prompt diagnosis and early treatment of botulism are essential to minimize the otherwise great risk of death. State Health Departments and the Center for Disease Control & Prevention (CDC) offer 24-hour diagnostic consultation, epidemic investigation assistance, and laboratory services. Trivalent (ABE) Botulinal Antitoxin is available from the CDC. In order to receive these services, it is necessary to do the following:

1. Contact the DHEC/Bureau of Epidemiology, Disease Control & Surveillance consultant at **(803) 898-0713** (M-F during business hours) or digital pager **(803) 690-3756** (after hours).
2. Contact the CDC Bureau of Food borne Diseases medical consultant at **(404)639-2206** daytime office) or the CDC operator at **(404)639-2888-3311**. to make arrangements for immediate shipment of the antitoxin, when indicated, and for proper shipment of selected clinical specimens and/or food samples for testing.
3. Contact the DHEC Bacteriology section (803-896-0805) to obtain faxed copy of CDC request form and State Laboratory number.

BREAST SMEAR CYTOLOGY -See PAP smear/ Breast smear Cytology

CAMPYLOBACTER - See "Stool Culture for Enteric Pathogens"

CBC

Only performed as part of prenatal battery for DHEC clinics and Lymphocyte subset. Not available as stand alone test.

Synonyms: Complete Blood Count with Differential

Test Section: Clinical laboratories Section, Hematology unit, 803-896-0954

Days test Performed: Monday-Friday

Request Form: DHEC 1357, Test #76000

Special Instructions: [See venipuncture, Section II](#)

Specimen & Volume: One (1) EDTA tube with min. 1.5 ml whole blood

Container: 3 or 7 ml lavender vacuum tube. (Either tube must be at least half filled with blood)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Blood clotted, or greater than 24 hours old. For universal rejections, see page 1-7.

Methodology: Automated cell counter

Add. Information: Reference values shown on printed result report

CPT Codes: 85025 automated CBC; + 85045 retic; 85009 manual diff.

CD4 - See "Lymphocyte Subset"

CELLOPHANE TAPE PREP - See "Pinworm Exam"

CHAGAS DISEASE - See "Parasite Serology"

CHAIN-OF-CUSTODY PROTOCOL

Drug Screens Only

Synonyms: COC

Test Section: Toxicology 803-896-0891

Days Test Performed: Monday - Friday

Request Form: DHEC 1310, Test #82000

Special Instructions: Chain-of-custody handling requires the use of a special collection kit obtained from the laboratory. There is a fee per sample for maintaining chain-of-custody handling. All chain-of-custody samples with positive drug of abuse results will be confirmed by Gas Chromatography/Mass Spectrophotometry (GC/MS) for an additional fee per sample [See collection procedure for urine drug screen, Section II](#)

Specimen & Volume: 30 ml. Random urine

Container: Chain-of-Custody specimen collection kit

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Does not require hazard label. **DO NOT** use Biohazard sticker on outside of shipping container. [See packing & shipping instructions, Section IV](#)

CHAIN-OF-CUSTODY PROTOCOL, Cont.

Rejection Criteria, specific: Chain-of-custody protocol not followed or Chain of custody collection kit not used. For universal rejections, see page I-7.

Methodology: NA

Add. Information: Chain-of-custody protocol must be maintained and documented at all times when handling specimens collected for legal purposes

CPT Code: NA

CLINICAL CHEMISTRY

Panels available to DHEC clinics only

CHEMISTRY GENERAL PANEL I	CHEMISTRY GENERAL PANEL II	CHEMISTRY GENERAL PANEL III	CPT CODE
CPT CODE: Use individual analyte codes shown in last column			
Glucose	Glucose	Glucose	82947
Uric Acid	Uric Acid	Uric Acid	84550
Cholesterol, total	Cholesterol, total	Cholesterol, total	82465
AST (SGOT)	AST (SGOT)	AST (SGOT)	84450
Total Protein	Total Protein	Total Protein	84155
Albumin	Albumin	Albumin	82040
Globulin*	Globulin*	Globulin*	NA
Total Bilirubin	Total Bilirubin	Total Bilirubin	82247
Calcium	Calcium	Calcium	82310
BUN	BUN	BUN	84520
Creatinine	Creatinine	Creatinine	82565
	BUN/Creatinine Ratio*	BUN/Creatinine Ratio*	NA
	Alkaline Phosphatase	Alkaline Phosphatase	84075
	Phosphorus	Phosphorus	84100
	LDH	LDH	83615
	ALT (SGPT)	ALT (SGPT)	84460
		Sodium	84295
		Potassium	84132
		Chloride	82435
		Triglycerides	84478
		CK	82550
		GGT	82977
LIPID PANEL with GLUCOSE CPT CODE: 80061, 82947	LIVER PANEL CPT CODE: 80076 + 82465 (cholesterol)	TB PANEL	CPT CODE:
Cholesterol, Total	AST (SGOT)	AST (SGOT)	84450
Triglycerides	ALT (SGPT)	ALT (SGPT)	84460
HDL	Alkaline Phosphatase	Total Bilirubin	82247
LDL*	Total Bilirubin	Alkaline Phosphatase	84075
Glucose	Cholesterol	Uric Acid	84550
	Total Protein	BUN ratio*	
	Albumin	Creatinine	82565
	Globulin*	Glucose	82947
	LDH		

*Calculated Values have no CPT codes and cannot be billed

CLINICAL CHEMISTRY, CONT

Synonyms: Serum Chemistries,

Test Section: Clinical Laboratories, Clinical Chemistry Unit, 803-896-0891

Days Test Performed: Monday-Friday

Request Form: DHEC 1341, Test # 710- 719 (varies with panel)

Special Instructions: Lipid panel requires fasting specimen

Specimen & Volume: 2-5 ml blood. [See Venipuncture procedure, Section II, if needed.](#)

Container: Vacutainer tube

Storage/Shipping Temperature: Store and ship at Room temperature;

Shipping Description: Diagnostic specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: none. For universal rejections, see page I-7.

Methodology: Automated Chemistry analyzer

Add. Information: None

CPT Code: Must use individual analyte codes. See previous page

CHLAMYDIA (CT) DETECTION BY NUCLEIC ACID AMPLIFICATION

Synonyms: Gen-Probe C , C. trachomatis Amplified Nucleic Acid Probe, Chlamydia rRNA, CT Aptima

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday-Friday

Request Form: DHEC 1345, Test [#50600](#) - Chlamydia; OR Test [#50700](#) - Chlamydia and GC.

Special Instructions: Only use Gen-Probe Aptima Combo 2 specimen collection kit(swab or urine). Patients under the age of twelve should be tested by culture. **Same specimen can be used for both CT and GC** [See collection procedure, Section II](#)

Specimen & Volume: Swab specimen: Endocervical and/or male urethral Gen-Probe blue-shafted swab in Gen-Probe Aptima Combo 2 transport media. Vaginal specimens will be tested, but reported with a disclaimer. An alternate specimen for the vaginal specimen would be a urine specimen. Urine specimen: Patient should not have voided within one hour of collection. Collect 20-30 ml of the first-catch urine stream. Transfer 2 ml. of urine into urine transport tube so that the urine level falls within the two lines on the transport tube labeled :” fill area”.

Container: Gen-Probe Aptima Combo 2 Unisex transport kit for swabs.

Gen-Probe Aptima Combo 2 Urine specimen transport tube for urines.

Storage/Shipping Temperature: Store and ship at Room temperature; Swab specimens must be tested within 60 days of collection, and Urine specimens within 30 days of collection.

Shipping Description: Diagnostic specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen from non-genital site(other than urine); No swab or white swab in transport media; 2 swabs in transport media; Urine above or below designated black lines on transport tube labeled fill area; Swab specimen more than 60 days old, or urine specimen more than 30 days old when received. For universal rejections, see page I-7.

Methodology: Target amplification Nucleic acid Probe

Add. Information: This test is not appropriate in cases of sexual assault or abuse; Patients under the age of twelve should be tested by culture

CPT Code: 87491 for CT only; use 87491 and 87591 (GC) for combination test

CHLAMYDIA TRACHOMATIS CULTURE

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Tuesday and Friday

Request Form: DHEC 1325B, or revised DHEC 1337 Form, Test #25600

Special Instructions: Culture from non-genital specimens only except hysterectomy patients; Genital specimen from hysterectomy patients acceptable [See collection procedure, Section II](#)

Specimen & Volume: Respiratory specimens, eye (conjunctival) swabs, rectal swabs, and specimens for suspected child abuse

Container: Screw capped tube of 2 SP Media (Chlamydia transport media)

Storage/Shipping Temperature: Store in refrigerator. Ship cold with cold packs. If held longer than 48 hours, freeze at -70°C and ship on dry ice. DO NOT freeze at -20 °C.

Shipping Description: Diagnostic specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: 2 SP Chlamydia transport media not used; specimen not cold on arrival. For universal rejections, see page I-7.

Methodology: Culture

Add. Information: NA

CPT Code: 87110

CLOSTRIDIUM DIFFICILE

This test is offered as a reference procedure. It is not routinely available.

Synonyms: Clostridium difficile culture;

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday-Friday

Request Form: DHEC 1345, Test #51000

Special Instructions: None

Specimen & Volume: 5 ml. Feces collected in clean container or referred bacterial isolate

Container: Leak-proof, clean container for feces; bacterial isolate in thioglycollate in screw-capped tube overlaid with sterile Vaseline

Storage/Shipping Temperature: Fecal Specimens arriving within a few hours of collection may be submitted on cold pack; If delayed, freeze and submit on dry ice Submit culture in thioglycollate at room temperature

Shipping Description: Diagnostic Specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Fecal specimen not cold on arrival. For universal rejections, see page I-7.

Methodology: Conventional culture methods. Note: Toxin test no longer available.

Add. Information: None

CPT Code: 87075 Culture;

CMV - See "Cytomegalovirus Culture" or "Serology"

COCAINE & MARIJUANA SCREEN, URINE

Synonyms: Benzoylcegonine & Cannabinoloid, Drugs of Abuse Screen

Test Section: Clinical Laboratories section, toxicology unit, 803-896-0891

Days Test Performed: Monday - Friday

Request Form: DHEC 1310, Test #81300

Special Instructions: See [urine drug screen Chain-of-Custody protocol, Section II, if needed](#)

Specimen & Volume: 25 ml Random urine

Container: Plastic urine container

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Considered non-infectious. **DO NOT** put biohazard label on outside of shipping container. See [packaging and shipping instruction under COC collection protocol, section II](#).

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: Enzyme Immunoassay (EIA)

Add. Information: None

CPT Code: 80101 each drug

COMPLETE BLOOD COUNT- See CBC

CONGENITAL ADRENAL HYPERPLASIA - See "Newborn Screening"

CORYNEBACTERIUM DIPHTHERIAE, CULTURE & ID

Synonyms: *C. diphtheriae*

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday-Friday

Request Form: DHEC 1345, Test #51000 (clinical material or swab) or Test #51100 (referred isolate)

Special Instructions: NA

Specimen & Volume: Throat swab; referred isolate

Container: Submit swab in transport tube (culturette), submit referred isolate on agar slant in screw capped tube See [bacterial culture collection, Section II](#)

Storage/Shipping Temperature: Store & ship at room temperature

Shipping Description: Diagnostic specimen: See [packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Culturette not used or Ampule in culturette not crushed.(throat swab). For universal rejections, see page I-7.

Methodology: Conventional culture methods

Add. Information: Detection of *Corynebacterium diphtheriae*

CPT Code: 87070, culture; 87077 ID

COXSACKIE VIRUS A & B CULTURE - See "Enterovirus Culture"

CRYPTOCOCCUS NEOFORMANS- see "Fungal Culture"

CRYPTOSPORIDIUM STAIN

Synonyms: NA

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #40600

Special Instructions: None

Specimen & Volume: Walnut-sized portion Fresh stool or 3 ml of liquid stool, formalin preserved stool, duodenal fluid, or bile

Container: Transport tube in kit

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen preserved in PVA; improper labeling For universal rejections, see page I-7.

Methodology: Microscopic exam of acid fast stained smear; FA stain

Add. Information: To detect the presence of *Cryptosporidium* oocysts

CPT Code: 87015, 87272

CYCLOSPORA

Synonyms: *C. cayetanensis*

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #41000

Special Instructions: None

Specimen & Volume: Walnut-sized portion of fresh stool; or walnut-sized portion of feces in 15 ml of 10 % formalin

Container: Screw-capped tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen preserved in PVA

Methodology: Microscopic exam of acid-fast stained smears

Add. Information: To detect the presence of cyclospora

CPT Code: Concentration 87015, culture 87206

CYSTICERCOSIS - See "Parasite Serology"

CYTOLOGY, BREAST SMEAR.-see PAP smear/Breast smear Cytology

CYTOLOGY, PAPS SMEAR.-see PAP smear/Breast smear Cytology

CYTOMEGALOVIRUS CULTURE

Synonyms: CMV

Test Section: Virology, 803-896-0819

Days Test Performed: Monday-Friday

Request Form: DHEC 1337, Test #27300

Special Instructions: Refrigerate immediately upon collection.

Specimen & Volume: Urine (preferred specimen); tissue; Buffy coat (submit 2 EDTA tubes), bronchial washing, CSF

Container: Plastic urine container

Storage/Shipping Temperature: Ship COLD within 24 - 48 hours. DO NOT FREEZE

Shipping Description: Diagnostic specimen. [See packing and shipping instructions, section IV.](#)

Rejection Criteria, specific: Specimen not cold on arrival; specimen frozen; specimen too old. For universal rejections, see page I-7.

Methodology: Cell culture

Add. Information: Preliminary report on urine (shell vial culture) reported within 48 hours. No preliminary report on tissue, sputum, feces or CSF

CPT Code: Culture 87252; Identification 87253

CYTOMEGALOVIRUS SEROLOGY

Synonyms: CMV

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test #10800; Immune status (single specimen); Test #13900 diagnostic (paired sera)

Special Instructions: [See venipuncture procedure, Section II, if needed](#)

Specimen & Volume: 5 ml Whole clotted blood or 2 ml. serum

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7

Methodology: EIA

Add. Information: Immune status reported as positive, negative or equivocal. Diagnostic results are positive, negative, or equivocal with comment attached when needed, indicating current infection.

CPT Code: 86644

DAIRY PRODUCTS EXAMINATIONS

The Dairy Products Section performs test on dairy products to assure the public that the standards for bacterial limits and butterfat levels as defined by the S.C. Milk Standards and Regulations are maintained and that milk is free of antibiotics or added water. Products from each dairy in S.C. are examined at least eight times a year. Tests are performed on pasteurized milk and other dairy products including creams, ice creams and other frozen desserts. Raw milk from dairy farms is tested with the same frequency.

Samples are collected by environmentalists from the DHEC Dairy Bureau.

If milk or other dairy products are believed to be the cause of a food borne illness, the sample is handled through the county health department, and is tested in the Food Section of the Bureau of Laboratories.

Please call the Environmental Health Section of your local County Health Department for help.

DIPHTHERIA - See *Corynebacterium diphtheriae*

DRUGS OF ABUSE SCREEN, URINE

Synonyms: Panel Includes: Amphetamine, Barbiturate, Cannabinoid, Opiate, Cocaine, Benzodiazepine, Propoxyphene, Methadone, Methaqualone, Phencyclidine and Alcohol

Test Section: Toxicology/Clinical Chemistry, 803-896-0891

Days Test Performed: Monday – Friday

Request Form: DHEC 1310, Test #81100

Special Instructions: See [chain-of-custody protocol, Section II, if desired](#)

Specimen & Volume: 30 ml. random urine

Container: Plastic urine container

Storage/Shipping Temperature: Store and ship at room temperature; Refrigerate if longer than 24 hours before shipping

Shipping Description: Does not require hazard marking. DO NOT use Biohazard sticker on outside of shipping container. See [packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Break in Chain -of -custody if COC specimen. For universal rejections, see page I-7.

Methodology: Immunoassay

Add. Information: NA

CPT Code: 80101(X 12 classes). For confirmation of positives, add 80102.

EASTERN EQUINE ENCEPHALITIS - See "Arbovirus Serology"

ECHO - See "Enterovirus Culture"

E. COLI O157 - See " Enteric Pathogens Culture ”

ENCHINOCOCCOSIS - See "Parasite Serology"

ENTERIC PATHOGENS CULTURE

Synonyms: Fecal Culture, Enteric Culture, Salmonella Culture, Shigella Culture

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test #50800

Special Instructions: [See Enteric collection procedure, Section II.](#)

Specimen & Volume: Walnut sized portion of Feces or 5-10 ml of liquid stool.

Infant specimens may be collected in a disposable diaper with plastic side facing inside DO NOT COLLECT FROM TOILET

Container: Transport tube in Enteric Kit with Cary-Blair medium is used when E. coli 0157, Salmonella, Shigella, Yersinia, Staphylococcus, Bacillus cereus, Vibrio, or Campylobacter is suspected.

Storage/Shipping Temperature: Stools not in holding medium must be shipped cold with cold packs to arrive in the laboratory and be inoculated within 24 hours of collections. If the specimen is in transport medium, store and ship at room temperature to be received at the lab within 48 hours of collection.

Shipping Description: Diagnostic Specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Quantity insufficient; specimen too old; improper transport media. For universal rejections, see page I-7.

Methodology: Conventional culture methods and biochemicals; Serological tests for Shigella, E. coli 0157:H7, V.cholera and Salmonella including Salmonella serotyping

Add. Information: NA

CPT Code: 87045 Salmonella and Shigella Culture; 87046 all others; Use 87077 for ID.

ENTEROBIUS VERMICULARIS - See "Pinworm Exam"

ENTEROVIRUS CULTURE

Synonyms: Includes - ECHO, Coxsackie, Polio

Test Section: Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1337, Test #27000

Special Instructions: [See Virus culture collection procedures, Section II](#)

Specimen & Volume: Throat swab, rectal swab, N-P swab, feces, CSF

Container: Dry tube for feces, CSF collection tube, or tube of Viral transport media (Provided upon request) for swab.

Storage/Shipping Temperature: Store in refrigerator and ship cold with cold packs within 24-48 hours. If shipping is delayed, freeze specimen and ship on dry ice.

Shipping Description: Diagnostic Specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen not cold on arrival; specimen too old. For Universal rejections, see page I-7.

Methodology: Cell culture

Add. Information: NA

CPT Code: Culture 87252; ID 87253

ENVIRONMENTAL LEAD- See Lead, Environmental

FILARIASIS - See "Parasite Serology"

FOOD-BORNE ILLNESSES (FOOD POISONING)

The Food Microbiology Section assists physicians and local health department officials in the diagnosis and epidemiological investigation of suspected food borne illness.

A physician with a patient suspected of having a food borne illness should contact Food Protection in the local county health department for assistance in the collection and shipment of food samples. The laboratory does not accept food samples directly from individuals.

FUNGAL CULTURE, PRIMARY ISOLATION AND IDENTIFICATION

Restricted to County Health Departments, State/County Hospitals, and Veterinary sources; otherwise, prior consultation is required.

Synonyms: Mycology, Fungus, Mold culture, Yeast Culture, Aerobic Actinomycete

Test Section: Mycology, 803-896-0961

Days Test Performed: Monday - Friday

Request Form: DHEC 1333, Test #30100

Special Instructions: [See fungal culture collection procedures, Section II](#)

Collect using aseptic technique

Sputum: Collect deep cough specimen in morning after patient's teeth have been brushed and mouth rinsed with mouthwash. Skin Scrapings: Clean lesion, scrap material from periphery of lesion, and collect any exudate.

Hair: Collect short, broken hairs and roots.

Nail Scraping: Shave cleaned nails from the proximal to the distal end and collect debris under the nail plate.

Storage/Shipping Temperature: Store and ship at room temperature. Respiratory specimens should be received within 24 hours of collection

Specimen & Volume: 5 ml. Sputum, bronchial washing, aspirates, exudates, CSF, blood, bone marrow, tissue; 50 ml. urine or body fluids; 8-10 visible pieces of scraping or broken hairs, skin, or nails; swabs of conjunctiva and throats

Container: Sterile screw cap container

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Sputum specimens greater than 24 hours old, specimens grossly contaminated with saliva. For universal rejections, see page I-7.

Methodology: Conventional culture methods

Add. Information: Non-dermal specimens: Sender will be notified if significant structures are observed on direct exam. Telephone contact is made with sender if an isolate is suspected of being a systemic fungus

CPT Code: Skin Culture 87101; Other Culture 87102; Blood Culture 87103; Identification 87106

FUNGAL CULTURE, REFERRED ISOLATE FOR IDENTIFICATION

Synonyms: Mycology, Fungus, Mold Isolates, Yeast Isolates, Aerobic Actinomycete Isolates

Test Section: Mycology, 803-896-0961

Days Test Performed: Monday - Friday

Request Form: DHEC 1333, Test #30200

Special Instructions: Include date isolate was transferred; Notify lab by phone if possible systemic mycosis; Indicate on form if isolate grows on mycobiotic medium; Pure isolate is preferred

Specimen & Volume: Isolate on appropriate agar slant or culture flask; PLATES WILL NOT BE ACCEPTED

Container: Seal tube or flask with parafilm or masking tape

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Infectious substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: Conventional identification methods

Add. Information: Sender is notified by phone if systemic mold is suspected; A written report is sent as soon as isolate is identified

CPT Code: 87106

GALACTOSEMIA - See "Newborn Screening"

GC CULTURE - See "Gonococcal Culture"

GEN-PROBE ANTIGEN DETECTION - See GC and Chlamydia antigen detection

GERMAN MEASLES - See "Rubella"

GIARDIA - See "Trichrome Stain" or "Parasite Examination"; General (O and P)

GIEMSA STAIN - See "Malaria Smear"

GONOCOCCAL (GC) DETECTION NUCLEIC ACID AMPLIFICATION

Synonyms: Gen-Probe N. gonorrhoeae Amplified Nucleic Acid Probe, Gonorrhea rRNA, GC Aptima

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday-Friday

Request Form: DHEC 3445, Test #50500-GC only; Test #50700 - GC and Chlamydia

Special Instructions: Only use Gen-Probe Aptima Combo 2 specimen collection kit Materials (swab or urine). Patients under the age of twelve should be tested by culture.

Specimen & Volume: Swab specimen: Endocervical or male urethral Gen-Probe blue-shafted swab in Gen-Probe Aptima Combo 2 Transport media. Vaginal samples will be tested but reported with a disclaimer. An alternate specimen for the vaginal specimen would be a urine specimen. [See GC/Chlamydia Gen-probe collection procedure, Section II](#)

Container: Gen-Probe Aptima Combo 2 Unisex transport kit for swabs.

Gen-Probe Aptima Combo 2 Urine specimen transport tubes for urines.

Storage/Shipping Temperature: Store and ship at room temperature; Swab specimens must be tested within 60 days of collection; Urine specimens within 30 days of collection.

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen from non-genital site(other than urine); No swab or white swab in tube; 2 swabs in one tube; Urine above or below designated black lines on transport tube labeled fill area; swab specimen more than 60 days old; Urine specimen more than 30 days old.. For universal rejections, see page I-7.

Methodology: Target Amplification Nucleic acid Probe

Add. Information: This test is not appropriate in cases of sexual assault or abuse.

Patients under the age of 12 should be tested by culture.

CPT Code: 97591 GC only. Use 87491 and 97591 for combination test

GONOCOCCAL (GONORRHEA) CULTURE

Synonyms: GC culture, *Neisseria gonorrhoeae* culture

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1325B or 1345, Test #50100

GONOCOCCAL (GONORRHEA) CULTURE , CONT

Special Instructions: Bring transgrow bottle to room temperature before inoculating: hold bottle upright and roll swab over entire surface of medium; discard swab.

Specimen & Volume: [See N. gonorrhoeae collection procedure, Section II](#)

Eye swab -obtain swab of conjunctival exudates

Cervical-swab Insert sterile cotton-tipped swab into endocervical canal; rotate and remove

Rectal -Insert cotton-tipped swab one inch into anal canal, rotate and remove. If swab is contaminated with feces, discard and use another swab to repeat

Urethral-Gently insert sterile loop or swab into urethra. Collect at least one hour after urinating. If making slides, collect two swabs or use one side of swab for culture and the other side for the slide

Container: Transgrow bottles. DO NOT PLACE LABEL ON CLEAR SIDE OF BOTTLE

Storage/Shipping Temperature: If an incubator is available, incubate inoculated transgrow bottle upright at 35° C. until shipped, and indicate incubation time on Request Form. Specimens collected on Friday can be incubated until Monday, but remove first thing Monday morning to prevent overgrowth of contaminants. If an incubator is not available, make sure culture is shipped on the same day as collected. Health departments using the state courier may ship cultures on Friday and mark as not incubated. DO NOT REFRIGERATE AFTER INOCULATION. Do not use expired media

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Transgrow media not used or media expired; specimen in transit more than 5 days. For universal rejections, see age I-7.

Methodology: Carbohydrate fermentation or enzyme detection

Add. Information: NA

CPT Code: 87070 culture; and 87077 (ID)

GROUP A STREPTOCOCCUS - See Beta-Strep culture, group A

GROUP B STREPTOCOCCUS -See Beta-Strep culture, group B

HANTAVIRUS SEROLOGY- IgG/IgM

Synonyms: None

Test Section: Virology, 803-896-0819

Days Test Performed: As needed

Request Form: DHEC 1301, Write test name in blank space

Special Instructions: Call prior to sending specimen; Do NOT remove serum from clot

Specimen & Volume: 5 ml whole blood [See Venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature.

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: EIA

Add. Information: None

CPT Code: 86790

HEAVY METAL ANALYSIS - See Lead analysis...for others, call laboratory

HEMOGLOBIN (Hb) ELECTROPHORESIS

Synonyms: Sick Cell screen Also part of newborn screening panel

Test Section: Newborn Screening, 803-896-0874

Days Test Performed: Monday - Friday

Request Form: DHEC 1327, Test #90005

Special Instructions: [See heel-stick specimen collection procedure, Section II](#)

Specimen & Volume: Blood spots on filter paper or EDTA anticoagulated whole blood, 2 ml

Container: Filter paper or lavender top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: More than one month old; transfused; blood spots not properly collected. For universal rejections, see page I-7.

Methodology: Iso Electric Focusing (IEF); High Performance Liquid Chromatography (HPLC)

Add. Information: NA

CPT Code: 83020

HEMATOLOGY- See CBC

HEMOLYTIC ANEMIA - See "Hemoglobin Electrophoresis"

HEPATITIS A SEROLOGY

Synonyms: HAV IgG and HAV IgM

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Upon request; See Special Instructions below.

Request Form: DHEC 1359, Test # 019- IgG Hepatitis A, Total; Test # 020- IgM Hepatitis A, IgM

Special Instructions: HAV total antibody testing will be performed on all patients received for screening, with follow-up on all positive patients with Hepatitis A IgM. If patients suspected of having Hepatitis A and is not involved in an outbreak, request Hepatitis A IgM and total antibody. All Hepatitis A outbreak investigations should be reported to the laboratory supervisor (803-896-0811) or Division Director (803-896-0965) prior to shipment of specimens

Specimen & Volume: 0.5 ml whole blood or 0.25 ml serum or plasma [See Venipuncture collection procedure, Section II, if needed.](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature Specimen must arrive at lab within 5 days of collection; If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice

Shipping Description: Diagnostic specimen [See packing & shipping instructions, Section IV.](#)

Rejection Criteria, specific: Improperly stored/shipped or contaminated specimens
For universal rejections, see page I-7.

Methodology: EIA

Add. Information: A positive HAV IgG antibody result indicates a past or current HAV infection; A positive HAV IgM antibody indicates an acute HAV infection, one that is usually accompanied by clinical symptoms of acute hepatitis; The clinical symptoms of HAV may precede the laboratory detection of HAV IgM by a few days

CPT Code: 86708-IgG; 86709-IgM

HEPATITIS B CORE TOTAL ANTIBODY SCREEN

Synonyms: Anti-HBc

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday - Thursday

Request Form: DHEC 1359, Test # 22600

Special Instructions: [See Venipuncture procedure, Section II, if needed](#)

Specimen & Volume: One (1) ml whole clotted blood, or 0.5 ml serum or plasma; Specimen must arrive at lab within 5 days of collection; If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Improperly stored/shipped specimens, grossly hemolyzed and contaminated specimens

Methodology: EIA

Add. Information: NA

CPT Code: 86704

HEPATITIS B DIAGNOSTIC PROFILE

Synonyms: NA

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday - Thursday

Request Form: DHEC 1359, Test #22300

Special Instructions: See [Venipuncture procedure, Section II, if needed](#)

Specimen & Volume: 2-5 ml whole clotted blood, or 2 ml serum or plasma.

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature; Specimen must arrive at lab within 5 days of collection; If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice

Shipping Description: Diagnostic Specimen See [packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Improperly stored/shipped or contaminated specimens
For universal rejections, see page I-7.

Methodology: EIA

Add. Information: Includes tests for HBsAg, anti-HBs, and anti-HBc. HBeAg and anti-HBe are performed if indicated.

Interpretations:

HbsAg	anti-HBs	Anti-HBc total antibody	Interpretation
-	-	-	No laboratory evidence of HBV infection. Does not rule-out “low level” HBV carrier state, or the” window” between the disappearance of HBsAg and the appearance of anti-HBs and anti-HBc IgG.
+	-	-	Early acute HBV infection.
+	±	+	HBV infection, either acute or chronic. Differentiate with anti-HBc IgM.
-	+	+	Previous HBV infection and immunity to HBV.
-	+	-	Vaccine-type response indicating immunity to HBV.

CPT Code: 87340 surface antigen; 86706 surface antibody; 86704 core antibody; 87350 E antigen; 86707 E antibody

HEPATITIS B CORE IgM ANTIBODY

Synonyms: Anti-HBc IgM

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Available upon request. See special instructions below.

Request Form: DHEC 1359 (Rev.2/02), Write in the test name and number 220 if not printed on form (Use space above the word “Syphilis”)

Special Instructions: Consultation between the requesting physician or district Medical Director and the laboratory supervisor or Division Director is required prior to specimen testing

HEPATITIS B CORE IgM ANTIBODY, Cont.

Specimen & Volume: 0.5 ml whole clotted blood or 0.25 ml serum or plasma

Container: Red top vacuum tube preferred [See venipuncture procedure, section II, if needed.](#)

Storage/Shipping Temperature: Store and ship at room temperature.

Specimen must arrive at lab within 5 days of collection. If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice.

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen will not be tested without prior consultation (See Special Instructions above); Improperly stored/shipped or contaminated specimens. For universal rejections, see page I-7.

Methodology: EIA

Add. Information: A positive Anti-HBc IgM result in conjunction with a positive hepatitis B surface antigen result indicates an early acute HBV infection

CPT Code: 86705

HEPATITIS B IMMUNE STATUS/POST-IMMUNIZATION

Synonyms: Anti-HBs and Anti-HBc

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday - Thursday

Request Form: DHEC 1359 (Rev. 2/02), Test [#22200](#)

Special Instructions: Tests includes Anti-HBs and Anti-HBc

Specimen & Volume: 2 ml Whole clotted blood, 1 ml serum or plasma

Container: Red top vacuum tube [See Venipuncture procedure, section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Specimen must arrive at lab within 5 days of collection. If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice

Shipping Description: Diagnostic Specimen [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Improperly stored/shipped or contaminated specimen.
For universal rejections, see page I-7.

Methodology: EIA

Add. Information: NA

CPT Code: 86706 surface antibody; 86704 core antibody

HEPATITIS B SURFACE ANTIGEN

Synonyms: HBsAG

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday – Thursday

Request Form: DHEC 1359(Rev. 2/02), Test [#22501](#)

HEPATITIS B SURFACE ANTIGEN, Cont.

Special Instructions: NA

Specimen & Volume: 2 ml whole clotted blood, or 1 ml serum or plasma

Container: Red top vacuum tube [See Venipuncture procedure, section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature;

Specimen must arrive at lab within 5 days of collection; If shipping is delayed more than 5 days after collection, freeze serum at – 20° C and ship on dry ice

Shipping Description: Diagnostic Specimen. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Improperly stored/shipped or contaminated specimens

Methodology: EIA

Add. Information: NA

CPT Code: 87340

HEPATITIS PRENATAL SCREEN - See "Hepatitis B Surface Antigen."

HEPATITIS C, TOTAL ANTIBODY

Note: For project sites, positive specimens will be confirmed with PCR Quant. This necessitates a special collection and shipping protocol.

Synonyms: HCV IgG, HCV total antibody.

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday-Friday.

Request Form: DHEC 1359 (Rev.2/02), Test # 224

Special Instructions: For DHEC sites involved in the HCV Special Project, collect blood in a serum separator tube, spin down within 4 hours of collection, and ship cold with cold packs to arrive within 24 hours of collection. Label outside of box HCV Viral Load with indelible marker or sticker that cannot easily be removed.

Specimen & Volume : 0.5 ml whole clotted blood, or 0.250 ml serum or plasma.

Container: Serum separator tube preferred [See blood collection procedure for HCV, Section II](#)

Storage/Shipping Temperature: Store and ship at room temperature unless a project site. Specimen must arrive at lab within 5 days of collection. If shipping is delayed, freeze serum at – 20° C and ship on dry ice. See Special Instructions for [HCV Project](#) collection and shipping above. Sample must be shipped according to “Special Instructions”.

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen > 5 days old when received (special request specimens); specimen not cold on arrival (project sites); specimen >24 hrs. old when received (project sites); serum separator not used (project sites). For universal rejections, see page I-7.

Methodology: NA

Add. Information: Interpretation: A positive HCV total antibody result indicates a past or current HCV infection; All positive HCV results are repeated in duplicate and the results held until the HCV RIBA confirmation assay is performed; The HCV RIBA is performed once a week, usually on Monday

CPT Code: 86803

HEPATITIS C. QUALITATION, RIBA (STRIP IMMUNOBLOT ASAY)

Synonyms: HCV RIBA

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Once a week, usually on Monday

Request form: DHEC 1359, Test # 224

Special Instructions: Serum Separator tube preferred

Specimen & Volume: One (1) ml Serum or plasma [See collection procedure for HCV, Section II](#)

Container: Serum separator tube

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs; Specimen must arrive at lab within 24 hours of collection

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Not received within 24 hours or not cold on arrival For universal rejections, see page I-7.

Methodology: Strip Immunoblot Asssay

Add. Information: Interpretation: A positive test result indicates the presence of anti-HCV and past or present HCV infection; An indeterminate test result indicates that anti-HCV may or may not be present and the patient should be retested in 6-12 months; A negative result that was positive by a licensed EIA screening procedure does not exclude the possibility of infection with HCV. Levels of anti-HCV may be undetectable in early infection; The patient should be retested in 6-12 months if he/she is at high risk for hepatitis infection

CPT Code: 86804

HEPATITIS C QUANTITATION BY PCR (RNA)

Only available to participants in the DHEC HCV special project

Synonyms: HCV Viral Load test

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Within 10 working days of collection

Request form: DHEC 1359, Test # 224

Special Instructions: Specimen must be centrifuged within 4 hours of collection

Specimen & Volume: 2 ml. Serum Use serum separator tube, and collect a full 6 ml. of blood. [See blood collection procedure for HCV, section II](#)

Container: Serum separator tube

Storage/Shipping Temperature: Transport on cold packs in a container with return mailing address and the word **HCV** printed on the outside of the container; Use enough cold packs to maintain a temperature between 2°-8 °C during transport; Specimen must arrive at the laboratory **within 24 hours of collection**

Shipping Description: Infectious substance. [See packing & shipping instructions, Section IV](#)

Rejection Criteria, specific: Serum separator tube not used, not cold on arrival For universal rejections, see page I-7.

Methodology: Branched DNA (bDNA) Signal amplification nucleic acid probe assay

Add. Information: Used for therapeutic monitoring of HCV infection

Interpretation: The measurable range for the procedure is 3200 -40,000,000 copies/ml or (615-8,320,000 IU/ML). Specimens within this testing range will be reported as HCV RNA copies/ml = _____, or _____ IU/ML

HEPATITIS C QUANTITATION BY PCR (RNA), CONT

Specimens less than 3200 copies/ml (615 IU/ML) will be reported as NO HCV RNA detected, less than 3200 copies/ml (less than 615 IU/ML)

Specimens above this range will be reported as HCV RNA is greater than 40,000,000 copies/ml (greater than 8,320,000 IU/ML)

CPT Code: 87522

HERPES SIMPLEX CULTURE

Synonyms: Herpes Virus Culture

Test Section: Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1337, Test #25000

Special Instructions: DO NOT freeze specimen as -20 °C. [See viral culture collection for H. Simplex, Section II](#)

Specimen & Volume: Throat swab, NP swab, Cervical/vaginal swabs, Surface lesions or Tissue; (small piece of fresh, unfixed) , CSF

Container: Viral transport or 2 SP Chlamydia transport media .(available upon request)

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs

Shipping Description: Diagnostic Specimen [See Packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Calcium alginate swab used; specimen not cold on arrival. For universal rejections, see page I-7.

Methodology: Cell Culture

Add. Information: NA

CPT Code: 87252 Culture; 87253 ID

HERPES SEROLOGY

Synonyms: Herpes virus

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test #10900 Immune status (single specimen), Test #13600 diagnostic (paired sera)

Special Instructions: Acute and convalescent specimens required for diagnosis, Specimens should be taken at least 2 weeks apart

Specimen & Volume: 5-7 ml whole clotted blood or 2 ml serum

Container: Red top vacuum tube; [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: EIA

Add. Information: Interpretation: Immune Status: Positive, negative or equivocal; diagnostic results are positive, negative or equivocal with comment attached when needed indicating current infection

CPT Code: Type I-86695; Type II-86696

HISTOPLASMA CAPSULATUM CULTURE- See “Fungal Culture”

HIV-1 PCR QUALITATIVE (DNA)

Synonyms: HIV-1 Proviral DNA Detection

Test Section: Molecular Epidemiology, 803-896-0825

Days Test Performed: Weekly

Request Form: DHEC 1359, Test # 4000

Special Instructions: NA

Specimen & Volume: Infants < 18 months old: Collect whole blood in an EDTA pediatric tube or a heel stick microtainer with EDTA anticoagulant (BD Brand # 365974) A minimum specimen volume of 0.3 ml is required for testing

Infants ≥ 18 months old and adults: Collect 1.5-2.0 ml EDTA anticoagulated whole blood, (lavender/purple top vacuum tube) [See collection procedure, Section II](#)

Container: EDTA tube or Heel-stick microtainer with EDTA anticoagulant

Storage/ Shipping Temperature: Store and ship at room temperature; Ship using cold packs during hot summer months; **Do not freeze** the specimen; Specimen must arrive at laboratory with 3 days of collection

Shipping Description: Diagnostic specimen. [See packing and shipping instructions, section IV.](#)

Rejection Criteria, specific: clotted blood; specimen > than 3 days old when received, specimen frozen on arrival. For universal rejections, see page I-7.

Methodology: PCR with EIA detection.

Add. Information: If Patient is an infant whose mother is anti-HIV-1 positive, or if Patient is an adult whose anti-HIV-1 tests, i.e., EIA and/or Western Blot, have shown indeterminate or conflicting results; Results are reported either Positive or Negative

CPT Code: 87535

HIV-1 PCR QUANTITATIVE (RNA)

Synonyms: HIV-1 Viral Load test.

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Weekly

Request Form: DHEC 1359, Test # 4100

Special Instructions: Label outside of container as HIV(VIRAL LOAD). Make sure label will not come off

Specimen & Volume: 1.5 to 2.0 ml EDTA anticoagulated plasma [See Venipuncture procedure, section II, if needed](#) If using EDTA vacutainer, separate the plasma from the packed cells within 2 hours of collection by centrifugation for 20 minutes at room temperature; Remove the plasma from the cells using a sterile transfer pipette to a sterile polypropylene transport tube; **Note:** Remove as much of the plasma from the cells as possible without aspirating cells **The assay requires 1.0 ml of plasma.** The PPT separator tube can be shipped after centrifugation without transferring plasma to another tube. Invert tube after centrifugation to insure complete separation of cells from plasma. If cells present in plasma, re-centrifuge before shipping.

Container: PPT vacutainer (supplied by the Bureau of Laboratories call 803-896-0913 to order) or polypropylene tube to which plasma cells have been transferred from the Lavender top (EDTA) vacuum tube

HIV-1 PCR QUANTITATIVE (RNA), Cont.

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs;

Specimen must arrive at the Laboratory within 24 hours after collection

Shipping Description: Infectious substance. [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen not cold on arrival; whole clotted blood. For universal rejections, see page I-7.

Methodology: Branched DNA (bDNA) Nucleic Acid Hybridization with PCR amplification

Add. Information: Therapeutic monitoring of HIV infection

Interpretation: The measurable reportable range for this procedure is 75-500,000 copies/ml plasma; Specimens testing within this range will be reported as the measured number and (in parentheses) as the log 10 value of the measured copy number e.g. 30,000 copies (4.48log 10) *The log 10 value will be rounded to the nearest second decimal place. A 0.5 log 10 increase or decrease in the copy number when compared to the patient's previous viral load result is regarded as a significant change* Specimens testing above 500,000 will be reported as > 500,000 copies/ ml plasma. Specimens testing below 75 copies/ ml plasma will be reported as "No HIV-1 RNA detected less than 75 copies/ ml plasma"

CPT Code: 87536

HIV-1 SEROLOGY

Synonyms: HIV-1 antibody, Anti-HIV-1

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday - Friday

Request Form: DHEC 1359(Rev.2/02), Test #230 HIV-1(EIAonly) , Test #234 HIV-1 (EIA)and Western Blot , Test # 235 HIV-1 (EIA) and STS(Reagin)

Special Instructions: NA

Specimen & Volume: 1 ml serum or plasma.

Container: Red top vacuum tube [See venipuncture procedure if needed.](#)

Storage/Shipping Temperature: Store and ship at room temperature; Specimen must arrive at laboratory within 5 days of collection; If shipping is delayed more than 5 days, freeze serum at - 20° C and ship on dry ice

Shipping Description: Diagnostic Specimen [See Packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: Enzyme Immunoassay (EIA), Western Blot, and STS Reagin for Syphilis

Add. Information: **Interpretation:** Repeat reactive specimens are confirmed by Western Blot; Recommend repeat testing on all first-time positive patient results including CD4 and Viral load (HIV-1 RNA)

CPT Code: 86701 for EIA; 86689 for Western Blot, and 86592 for RPR

HIV-1 SEROLOGY using Dried Blood Spots

Synonyms: NA

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday –Thursday

Request Form: DHEC 1359 (Rev. 2/02), Test # 230 or DHEC 1339

HIV-1 SEROLOGY using Dried Blood Spots, Cont.

Special Instructions: Write Dried blood spot on form in space above specimen type

Specimen & Volume: Dried Blood spots. Fill all paper circles with blood. Ship within 24 hours after collection [See capillary blood collection by finger stick procedure, Section II](#)

Container: Filter paper attached to requisition form

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Insufficient spots filled, scratched and abraded spots, layered or supersaturated spots. For universal rejections, see page I-7.

Methodology: Enzyme Immunoassay (EIA), Western Blot

Add. Information: Repeat reactive specimens are confirmed by Western Blot; Recommend repeat testing on all first-time positive results

CPT Code: 86701 for EIA; 86689 for Western Blot

HIV-1 SEROLOGICAL MONITORING- See “Lymphocyte Subset”

HOOKWORM - See “Parasite Examination”

HYPOTHYROIDISM - See "T4" for non-neonatal; see "Newborn Screening" for neonatal

INFLUENZA VIRUS CULTURE

Synonyms: Also included in respiratory culture battery

Test Section: Virology, 803-896-0819

Days Test Performed: Monday- Friday

Request Form: DHEC 1337, Test [#27100](#)

Special Instructions: *Collection of a a throat washing has been discontinued because of the use of antibiotics in some collection media.* Collect swab (do not use alginate swab) and place in transport media; and refrigerate until shipped. *Do not allow patient to gargle media*

Specimen & Volume: Throat or nasopharyngeal swab [See collection procedure for enterovirus or respiratory virus, Section II](#)

Container: Screw capped tube of viral transport media (Available upon request); Keep media refrigerated until used

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Calcium alginate swab used. For universal rejections, see page I-7.

Methodology: Cell culture

Add. Information: Submit on patients with symptoms compatible with influenza; Also see surveillance information below

CPT Code: Tissue Culture, 87252; Identification 87253

INFLUENZA VIRUS A AND B SEROLOGY

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Once/week

Request Form: DHEC 1301, Test [#10100](#),

Special Instructions: Acute and convalescent specimens required, 2 weeks between specimens [See venipuncture procedure, Section II, if needed](#)

Specimen & Volume: 5 ml Whole clotted blood or 2 ml serum

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: none. For universal rejections, see page I-7.

Methodology: Hemagglutination Inhibition (HI)

Add. Information: NA

CPT Code: 86710 each titer

INFLUENZA SURVEILLANCE

From October to April of each year, the Bureau of Laboratories participates in the World Health Organization's (WHO) Influenza Surveillance Program. Collection kits are provided and there is no charge if submitting throat swabs for the surveillance. Contact the Virology Lab for more information at 803-896-0819.

LEAD ANALYSIS, BLOOD

Synonyms: NA

Test Section: Special Chemistry, 803-896-0886

Days Test Performed: Monday - Friday

Request Form: DHEC 1311, Test #85200

Special Instructions: NA

Specimen & Volume: 200 µl EDTA whole blood from finger stick or heel stick for screening; Venipuncture preferred for confirmation of an elevated level; Minimum acceptable volume is 3 ml for venipuncture; 200 µL for finger stick or heel stick [See blood lead collection procedures, Section II](#)

Container: Lavender vacuum tube, or lavender Microtainer for finger or heel stick.

Storage/Shipping Temperature: Store and ship at room temperature; Refrigerate specimen if shipping is delayed

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Clotted blood. For universal rejections, see page I-7.

Methodology: Graphite Furnace Atomic Absorption

Add. Information: <10 µg/dL considered negative for children. Action levels for children and adults ;printed on results report.

CPT Code: 83655

LEAD ANALYSIS, ENVIRONMENTAL SAMPLES

Synonyms: NA

Test Section: Special Chemistry, 803-896-0886

Days Test Performed: Monday- Thursday

Request Form: DHEC 1311, Test #85400

Special Instructions: NA

Specimen & Volume: 1 Tablespoon Paint chips, 2 Tablespoons soil, or 100 ml. water

Container: Zip-lock bag for paint and soil. Plastic container for water

Storage & Shipping Temperature: Store and ship at room temperature

Shipping Description: Environmental sample. Does not require special packaging

Rejection Criteria, specific: NA

Methodology: Flame Atomic Absorption Spectrometry

Add. Information: NA

CPT Code: NA

LEGIONELLA CULTURE

Synonyms: Legionnaire's disease; Legionella culture

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday – Friday

Request Form: DHEC 1345, Test #51000

Special Instructions: Note: urine antigen test is not available at the Bureau of Laboratories

LEGIONELLA CULTURE, CONT

Specimen & Volume: 1-2 ml Sputum, Bronchial washing, pleural fluid, or other body fluids, lung tissue, bacterial isolate

Container: Sterile leak-proof container

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs; Specimen must arrive at laboratory within 48 hours of collection; If shipping is delayed for more than 48 hours, freeze at -20 C and ship on dry ice

Shipping Description: Diagnostic Specimen; Isolate is considered Infectious substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen not cold on arrival; For universal rejections, see page I-7.

Methodology: Conventional culture and biochemical methods

Add. Information: NA

CPT Code: Culture – 87070, culture; 87077 ID

LEGIONELLA FA

Synonyms: NA

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday

Request Form: DHEC 1345, Test [#51300](#)

Special Instructions: FA Test is screening only; Legionella culture is recommended and test [#510](#) will be performed on all specimens for FA that are appropriate for culture

Specimen & Volume: Fresh lung tissue imprints; scrapings of formalin fixed tissue or lower respiratory tract fluids - sputum; TTA; bronchial washing; pleural fluid, smears on slides (submit at least 2 separate slides), or Culture isolate

Container: Sterile leak-proof container, and crush proof slide holder; Or Screw capped tube containing agar medium that will support growth of isolate

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: FA Stain

Add. Information: NA

CPT Code: 87206

LEGIONELLA SEROLOGY

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test [# 023](#)

Special Instructions: Paired specimens required and should be taken 3-4 weeks apart

Specimen & Volume: 5 ml whole clotted blood or 2 ml serum [See venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

LEGIONELLA SEROLOGY, CONT

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Only one specimen received. For universal rejections, see page I-7.

Methodology: IFA

Add. Information: Interpretation: Titer of 1:256 on single specimen indicates infection at undetermined time; Four-fold increase to 1:128 or greater on paired sera indicates recent infection

CPT Code: 86713

LEISHMANIASIS - See "Parasite Serology"

LEPTOSPIROSIS CULTURE

Synonyms: NA

Test Section: CDC Leptospira Lab 404-639-3905

Days Test Performed: Referred to CDC

Request Form: CDC Form

Special Instructions: Blood specimens should be collected during the first week of symptoms. After the first week of symptoms, collect a mid-stream, clean catch urine specimen; Five (5) tubes of PLM media should be requested from CDC prior to sample collection

Specimen & Volume: 1 ml of heparinized blood or clean catch urine; Collect urine in clean container; Inoculate immediately; Put two (2) drops of blood or urine in each tube of medium; Avoid agitation of the blood sample because free hemoglobin kills Leptospira

Container: Screw capped tubes of PLM media

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Blood specimen collected after first week of illness; specimen not inoculated into PLM media prior to transport. For universal rejections, see page I-7.

Methodology: Conventional culture

Add. Information: Serology test is more sensitive and has a shorter turnaround time

CPT Code: 87040 (blood culture); 87088 (urine culture), 87077, ID.

LYME DISEASE

Synonyms: Borrelia Antibodies

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test # 024

Special Instructions: NA

Specimen & Volume: 5 ml whole blood or 2 ml; Serum

Container: Red-top vacutainer [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

LYME DISEASE, CONT

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: EIA

Add. Information: All positive EIA results are confirmed by western blot

CPT Code: 86618

LYMPHOCYTE SUBSET

Synonyms: CD4; T4 lymphocytes

Test Section: Clinical Labs section, Hematology Unit , 803-896-0954

Days Test Performed: Monday - Friday

Request Form: DHEC 1387, Test #78000

Special Instructions: Specimen must be less than 24 hours old when tested by laboratory

Specimen & Volume: 5-7 ml EDTA anticoagulated whole blood Mix well but gently

Container: Lavender top (EDTA) vacuum tube [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature .DO NOT REFRIGERATE

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen more than 30 hours old upon arrival, specimen clotted, Specimen received cold or frozen. For universal rejections, see page I-7.

Methodology: Laser Flow cytometry

Add. Information: Used To evaluate HIV status

Reference value: CD4 cells 34-59%, CD4/CD8 ratio 0.9-3.1, results highly variable during progression of disease NOTE: Lymphocyte subset includes CBC results

CPT Code: 86359, total count; 85360, Absolute CD4 and CD8; 85025, CBC)

MALARIA SMEAR

Synonyms: Giemsa Stain; Blood Parasite

Test Section: Bacteriology/ Parasitology 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test # 40400

Special Instructions: Prepare 2-3 thick and thin smears immediately after collection

Specimen & Volume: Capillary or EDTA anticoagulated whole Blood

Container: Slides; EDTA Tubes

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions Section IV](#)

Rejection Criteria, specific: Clotted blood, EDTA venous blood > 1 hr old; Blood smears > 3 days old. For Universal rejections, see page I-7.

Methodology: Microscopic examination of Giemsa stained smear

Add. Information: Used to detect blood parasites such as: malaria, microfilaria

CPT Code: 87207

MCADD (Medium chain Acyl Co-A Dehydrogenase Deficiency) - See Newborn Screening

MEASLES SEROLOGY See Rubeola and Rubella Serology

MHA-TP - See TP-PA

MICROSPORIDIUM STAIN

Synonyms: Chromotrope 2R Stain for microsporidium, Enterocytozoan Stain

Test Section: Bacteriology/Parasitology, 803-896-0805

Days Test Performed: Monday - Friday, as requested

Request Form: DHEC 1334, Test # 410

Special Instructions: Do not concentrate specimen

Specimen & Volume: 1 ml fresh stool less than 1 hour old preserved in 10% formalin; duodenal aspirates in 10% formalin; urine sediment, sputum, corneal scrapings, nasal smears (please submit at least 2 thin smears)

Container: Screw-capped leak proof container/tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: PVA preserved stool, plastic or paraffin-embedded tissue. For Universal rejections, see page I-7.

Methodology: Chromotrope 2R Stain/light microscopy

Add. Information: Diagnosis of Microsporidian infection by detection of spores

CPT Code: 87207

MITES - See “Scabies”

MOLD CULTURE - See "Fungal Culture"

MUMPS VIRUS CULTURE

Synonyms: also see respiratory viral culture

Test Section: Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1337, Test #27000

Special Instructions: NA

Specimen & Volume: Urine preferred, Throat swab, CSF [See throat swab collection, Section II, if needed.](#)

Container: No transport media needed for urine or CSF. Use sterile leakproof container. Screw capped tube of viral transport media (available upon request) for throat swab.

Storage/Shipping Temperature: Store in refrigerator; Ship with cold packs. If shipping is delayed more than 48 hours, freeze at -70 C and ship on dry ice

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Use of calcium alginate swab for throat specimen; specimen not cold on arrival. For Universal rejections, see page I-7.

Methodology: Cell Culture

Add. Information: NA

CPT Code: Culture, 87252; Identification 87253

MUMPS VIRUS SEROLOGY

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Once/week

Request Form: DHEC 1301, Test #13500 Immune status (single specimen) Test #13800 Diagnostic (paired specimens)

Special Instructions: Acute and convalescent specimens required, 2 weeks between specimens for diagnostic

Specimen & Volume: 2 ml. whole clotted blood or 1 ml. serum [See Venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: Immune status reported as positive, negative or equivocal; Diagnostic results reported as positive, negative or equivocal with comment attached when needed indicating current infection

CPT Code: 86735

MURINE TYPHUS SEROLOGY - See "Rickettsial Serology"

MYCOBACTERIAL CULTURE, BLOOD

Synonyms: TB, AFB

Test Section: Mycobacteriology (TB), 803-896-0828

Days Test Performed: Monday-Friday

Request Form: DHEC 1306, Test #60100

Special Instructions: Use MB/BacT Vial(1) Clean septum of MB vial with 70% alcohol; (2) Use good aseptic technique to cleanse arm; (3) Aseptically draw 4 to 5 ml blood and inject into MB vial (4) Clean top of vial with 70% alcohol, cover top with tape and mail in mailer provided

Specimen & Volume: 4-5 ml whole Blood [See Venipuncture procedure, Section II, if needed](#)

Container: MB/BacT Vial (Call Lab for container, 896-0828)

Storage/Shipping Temperature: Store and ship at room temperature; Incubate at 37 ° C if shipping is delayed over 24 hours

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen >5 day old. For Universal rejections, see page I-7.

Methodology: BacT Alert system , HPLC, Gen-Probe

Add. Information: NA

CPT Code: 87116(Culture). For ID, 87149(Gen-Probe) and 87143-(HPLC)

MYCOBACTERIAL CULTURE, Other than Blood

Synonyms: AFB, TB

Test Section: Mycobacteriology (TB), 803-896-0828

Days Test Performed: Monday - Friday

Request Form: DHEC 1306, Test #60100

Special Instructions: NA

Specimen & Volume: 5-10 ml Sputum, and other body fluids; 10 ml urine or gastric washings, Walnut sized portion of feces or 10 ml liquid stool [See mycobacterium culture collection procedure, Section II](#)

Container: Screw capped 50 ml polypropylene conical tube

Storage/Shipping Temperature: Store and ship Sputum at room temperature.

If shipping is delayed more than 24 hours, store in refrigerator

Store Urine in refrigerator and ship cold with cold packs.

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen > 5 days old when received (Sputum and Urine). For Universal rejections, see page I-7.

Methodology: Conventional culture methods, Gen-probe and HPLC for ID

Add. Information: NA

CPT Code: 87015 for conc; 87116 for culture; For ID, use 87149 -Gen-Probe & 87143HPL

MYCOBACTERIAL CULTURE, REFERRED FOR IDENTIFICATION

Synonyms: AFB, TB

Test Section: Mycobacteriology (TB), 803-896-0828

Days Test Performed: Monday - Friday

Request Form: DHEC 1306, Test # 60200

Special Instructions:

Specimen & Volume: Send only pure culture with sufficient growth to perform test

Container: LJ slant preferred

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Infectious substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Contaminated culture, non-viable organism. For Universal rejections, see page I-7.

Methodology: HPLC, Gen-Probe

Add. Information: NA

CPT Code: 87149 GenProbe and 87143- HPLC

MYCOBACTERIA ANTIBIOTIC SUSCEPTIBILITY

Synonyms: Sensitivity Testing

Test Section: Mycobacteriology (TB), 803-896-0828

Days Test Performed: Weekly on new TB isolates and by request on previously positive patients

Request Form: DHEC 1306, Test # 60400

Special Instructions: Call Laboratory for drugs other than INH, Ethambutol, Rifampin, Streptomycin and Pyrazinamide

Specimen & Volume: NA

Container: NA.

Storage/Shipping Temperature. NA.

Shipping Description: NA

Rejection Criteria, specific: None. For universal rejections, see page I-7.

Methodology: Bac-tec, conventional

Add. Information: NA

CPT Code: 87188 for Bac-Tec, 87184 for conventional disk method

MYCOPLASMA HOMINIS/UREAPLASMA CULTURE (GENITAL)

Synonyms: M. hominis and Ureaplasma

Test Section: Virology, 803-896-0819

Days Test Performed: Monday-Friday

Request Form: DHEC 1337, Test # 27200

Special Instructions: Please call Virology prior to sending, as special transport medium is required [See mycoplasma/ureaplasma culture collection procedure, Section II](#)

MYCOPLASMA/UREAPLASMA CULTURE (GENITAL), Cont.

Specimen & Volume: Vaginal swab, cervical swab, urethral swab, urine, endometrial washings, and placenta

Container: Screw capped tube of mycoplasma hominis and ureaplasma transport media

Storage/Shipping Temperature: If *M. hominis* is suspected, Store in refrigerator and ship with cold packs, if specimen will reach the laboratory within 6 hours; If shipping is delayed, freeze at -70° and ship on dry ice; If Ureaplasma is suspected, store in refrigerator and ship with cold packs; Specimen must arrive at laboratory within 48 hours of collection

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Cotton swab with wooden shaft used for collection; Incorrect collection media used; specimen not received within stated time; specimen not cold on arrival. .For Universal rejections, see page I-7.

Methodology: Culture

Add. Information: NA

CPT Code: Culture, 87109; Identification, 87253

MYCOPLASMA PNEUMONIAE CULTURE (RESPIRATORY)

Synonyms: Mycoplasma pneumoniae

Test Section: Virology, 803-896-0819

Days Test Performed: Monday-Friday

Request Form: DHEC 1337, Test [#27200](#)

Special Instructions: DO NOT use calcium alginate swab for collection Place swab in viral transport media after collection.

Specimen & Volume: Throat swab.or Bronchial washing. [See viral respiratory culture collection procedure, Section II](#)

Container: Screw capped tube of viral transport media

Storage/Shipping Temperature: Store in refrigerator; Ship with cold packs; Specimen must arrive at laboratory within 48 hours of collection

Shipping Description: Diagnostic Specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen more than 48 hrs old when received; Calcium alginate swab used. For universal rejections, see page I-7.

Methodology: Culture

Add. Information: NA

CPT Code: Culture, 87109; Identification, 87253

NAEGLERIA CULTURE - See "Amoebae Culture"

NEWBORN SCREENING PANEL

Synonyms: NA; **Tests include:** Phenylketonuria (PKU), Galactosemia (GAL), T4 and TSH for Congenital Hypothyroidism (CH), Congenital Adrenal Hyperplasia (CAH), Hemoglobinopathies (Sickle variants, etc.) & Medium Chain Acyl-Co-A Dehydrogenase Deficiency (MCADD).

Test Section: Newborn Screening, 803-896-0874

Days Test Performed: Monday - Friday

Request Form: DHEC # 1327 + DHEC 1812(temporary) for storage options

Special Instructions: See capillary blood collection by heel stick, Section II

Specimen & Volume: Whole bloodspots on filter paper; Fill all circles with blood

Container: Special Filter paper attached to request form and preaddressed mailing envelope

Storage/Shipping Temperature: Allow blood to dry completely before packing; Store and ship at room temperature; Ship within 24 hours after collection

Shipping Description: Diagnostic Specimen See packing and shipping instructions, Section IV

Rejection Criteria, specific: Scratched and abraded, contaminated, layered, or super-saturated spots. For Universal rejections, see page I-7.

Methodology: PKU and GAL - Fluorometric Analysis; T4, TSH and CAH – Timed-resolved Fluorimmunoassay (FIA); Hemoglobinopathies - Isoelectric Focusing (IEF), HPLC ; MCADD, Tandem Mass spectrophotometry

Add. Information: Interpretation: All results will be reported to the hospital, clinic, or institution and the attending physician (2 separate copies); PKU, GAL, CAH, and CH and MCADD are reported as within normal limits or outside normal limits unless otherwise noted; In addition, acylcarnitine levels are reported for MCADD .Hemoglobins will be reported out as normal or with the appropriate hemoglobinopathy identified.

1. Phenylketonuria Screen:

If phenylalanine level is outside normal limits, a quantitative result is given. Any specimen with a value greater than or equal to 4 mg/dL is considered outside normal limits. If the infant is diagnosed as having phenylketonuria, the infant should be provided a low phenylalanine diet. Repeat blood examinations can be performed as necessary to assist the physician in maintaining the phenylalanine level within prescribed limits

2. Congenital Hypothyroid (CH) Screen:

All infants receive a T4 (Thyroxine) and a TSH (Thyroid Stimulating Hormone) screening test.. A T4 value of ≤ 7 $\mu\text{g/dL}$ is abnormal for infants ≤ 7 days old. A T4 value of $\leq 4\mu\text{g/dL}$ is abnormal for infants ≥ 8 days old. A TSH value of ≥ 22 $\mu\text{IU/mL}$ is abnormal for all infants, regardless of age.

3. Congenital Adrenal Hyperplasia (CAH) Screen:

Patients with a present weight greater than or equal to 2500 grams and a 17-OH-progesterone value of 40 ng/ml or greater are reported as outside normal limits. Patients with a present weight less than 2500 grams and a 17-OH-progesterone value greater than 65 ng/ml are reported as outside normal limits.

4. Galactosemia (GAL) Screen:

If galactose level is outside normal limits, a quantitative result is given. Any specimen with a value greater than or equal to 10.0 mg/dL is considered outside normal limits. All abnormal specimens are tested for the presence of the galactose-1-phosphate uridyl transferase (GALT) enzyme. The enzyme activity is reported as normal or deficient. Patients on soy formula or less than 24 hrs old (if noted on the **Request Form**) will receive the Galactose enzyme test

NEWBORN SCREENING PANEL, Cont.

5. Hemoglobinopathy (Hb) Screen:

Results are reported as normal hemoglobin (Hb FA or Hb AF) or as an interpretative diagnosis for abnormal Hemoglobins. (e.g. Hb FAS, FAC FS) **Please note that this test does not detect all Thalassemias or Hemoglobins.**

6. MCADD

Results are reported as within normal limits or outside normal limits. If all or any acyl Carnitines are outside (greater than the cutoff) normal limits, a quantitative result will be given and the abnormal cutoff levels will be given. The C6:C8:C10 and C10:1 carnitines, along with the C8/C10 ratio, must be elevated for the test to be reported as a positive screening for MCADD. Elevated levels of one or more, but not all, of the measured carnitines will be reported as “may be indicative of a fatty acid oxidation disorder”

Abnormal Acycarnitine cutoff levels

C6 (Hexanoyl carnitine) ≥ 0.52 uM

C8 (Octanoyl carnitine) ≥ 0.60 uM

C10 (Decanoyl carnitine) ≥ 0.38 uM

C10:1 (Decenoyl carnitine) ≥ 0.25 uM

C8/C10 ratio ≥ 3.0

Note: Acylcarnitine levels drop precipitously over the first few weeks of life in both normal and affected infants, with affected infants values remaining in the abnormal range. A decrease in measured Acylcarnitine levels in an infant with MCADD over a period of time should not be interpreted as condition improvement. The infant has MCADD

7. HbA2 and S Quantitation (when whole blood is received):

Results are reported as a percentage of the total hemoglobin. HbA2 percentage $\geq 3.5\%$ is reported as abnormal.

CPT CODES: PKU-84030; T4-84437; TSH-84443; CAH-83516 MCADD-82016; Galactosemia-82760; Hemoglobinopathies- 83020

NORCARDIA CULTURE- See fungal culture

NORWALK-LIKE VIRUS DETECTION BY PCR

Synonyms: Norwalk or Norovirus PCR

Test Section: Molecular Epidemiology 803-896-0825

Days Test Performed: Weekly

Request Form: DHEC 1337, Write “Norwalk-like virus” in the VIRUS SUSPECTED box in the lower right corner

Special Instructions Batch stool specimens if possible. Rectal swabs are of insignificant value because they contain too little nucleic acid for amplification

Specimen & Volume: 1 ml fresh diarrheal stool specimen; Specimens collected within 48-72 hours of onset of symptoms are best; Specimens collected within 7 days of onset of symptoms will be accepted

Container: Sterile screw capped 50 ml.polypropylene conical tube

Storage/Shipping Temperature: Store in refrigerator; Ship with cold packs

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen not cold on arrival; Specimen more than 7 days old when received. For Universal rejections, see page I-7.

Methodology: Reverse transcriptase polymerase chain reaction (RT-PCR)

NORWALK-LIKE VIRUS DETECTION BY PCR

Add. Information Used to detect the presence of Norwalk-like virus (RNA).

RT-PCR results are positive or negative for the presence of Norwalk-like viruses (NLV)

CPT Code: 83890 extraction; 83894 Gel electrophoresis; 83898 amplification; 83902 Reverse transcriptase

OVA AND PARASITES EXAMINATION (O & P) - See "Parasite Examination, General"

PAP SMEAR /BREAST SMEAR CYTOLOGY

Available only to DHEC county health department clinics

Synonyms: Paps smear , Breast smear

Test Section: Cytology, 803-896-0892

Days Test Performed: Monday-Friday

Request form: DHEC 1362, Test # 65000

Special Instructions: NA

Specimen & Volume: Fixed Cervical or vaginal smear, or breast smear [See collection procedures, Section II](#)

Container: Microscope slide

Storage/Shipping Temperature: Slides may be stored indefinitely when spray-fixed; Store and ship at room temperature Use slide mailer.

Shipping Description: Fixed slides are considered non-hazardous and do not require special precautions for transport [See packing and mailing instructions, Section IV](#)

Rejection Criteria, specific: Air drying of slide. For Universal rejections, see page I-7.

Methodology: Microscopic observation of stained smears

Use/Add. Information: Interpretation: Findings are reported using the Bethesda System; Screening for presence of atypical, pre-neoplastic and neoplastic cells: Screening for presence of certain types of genital infections; evaluation of hormonal function (vaginal smears only)

CPT Code: Screen 88164; physician's interpretation 88141

PARAINFLUENZA VIRUS CULTURE- See respiratory viral culture

PARASITE EXAMINATION, GENERAL (O & P)

Synonyms: Ova and parasites, (O & P)

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #40100

Special Instructions: NA

Specimen & Volume: "Walnut" sized Stool, or 2 Tbsp liquid stool preserved in 10% formalin, SAF (sodium-acetate-acetic acid formalin), MIF (merthiolate-iodine-formalin) or PVA Note: Submit liquid or soft specimens in PVA for detection of trophozoites [See collection procedure, Section II](#)

Container: Leak proof screw cap tube

Storage/Shipping Temperature: Store and ship at room temperature

PARASITE EXAMINATION, GENERAL (O & P)

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen contaminated with urine or water, laxatives or barium; specimens covered in fungal growth; specimens that appear hard and desiccated; specimens more than 4 days old. For Universal rejections, see page I-7.

Methodology: Microscopic exam of concentrate. FA for Giardia/ Cryptosporidia

Add. Information: Detection of protozoan cysts, helminth eggs and larvae

CPT Code: 87177, Microscopic exam; 87206, FA

PARASITE EXAMINATION, STAINS,-See Cryptosporidium and Trichrome stains

PARASITE EXAMINATION, BLOOD PARASITES - See "Malaria Smear"

PARASITE EXAMINATION, ID OF PROGLOTTID OR WORM

Synonyms: NA

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test [#40500](#)

Special Instructions: Submit in 10% formalin or alcohol if formalin not available

Specimen & Volume: Proglottid or worm

Container: Leak-proof screw cap tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: NA. For Universal rejections, see page I-7.

Methodology: Visual or microscopic Examination of specimen

Add. Information: NA

CPT Code: 87168

PARASITE EXAMINATION, PINWORM - See "Pinworm Exam"

PARASITE SEROLOGY

Synonyms: NA; Test include: Chagas disease, cysticercosis, echinococcosis, leishmaniasis, malaria, schistosomiasis, trichinosis, visceral larva migrans (Toxocara) Toxoplasmosis; For additional information call 803-896-0805

Test Section: Referred to Centers for Disease Control and Prevention (CDC) for testing

Days Test Performed: NA

Request Form: CDC Specimen Referral Form 50.34 Rev. 8-84

Special Instructions: NA

Specimen & Volume: 2 ml Whole clotted blood or serum

Container: Red top vacuum tube [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: NA

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

PARASITE SEROLOGY, CONT

Rejection Criteria, specific: None For Universal rejections, see page I-7.

Methodology: NA

Add. Information: NA

CPT Code: NA

PARVOVIRUS IgG/IgM SEROLOGY

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Weekly

Request Form: DHEC 1301, Test #257

Special Instructions: Single specimen only

Specimen & Volume: 5 ml whole blood or 2 ml serum [See Venipuncture procedure, Section II](#)

Container: EDTA tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: IFA

Add. Information: Interpretation: Positive or negative for Parvovirus

CPT Code: 86747 each immunoglobulin

PHENYLKETONURIA (PKU) - See "Newborn Screening"

PINWORM EXAMINATION

Synonyms: *Enterobius vermicularis*, Cellophane tape prep, Scotch tape prep

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #40300

Special Instructions: Use clear cellophane tape, collect first thing in the morning

Specimen & Volume: *E. vermicularis* ova from the perianal area [See pinworm prep collection procedure, Section II](#)

Container: Microscope slide with collection tape

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria: Use of frosted cellophane tape, stool specimen. For Universal rejections, see page I-7.

Methodology: Microscopic examination for detection of pinworm eggs and adult worms

Add. Information: NA

CPT Code: 87172

PKU - See "Newborn Screening"

POLIOMYELITIS - See Enterovirus culture

PREMARITAL PROFILE FOR OUT OF STATE LICENSES

NOTE: No premarital testing is required for South Carolina marriage license

Synonyms: NA

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday-Friday

Request Form: DHEC 1301(Rubella), 1359 (Syphilis, and HIV)-Indicate state where marriage will take place

Special Instructions: Tests vary according to specific state ([See table 4, Section I for listing](#))

Specimen & Volume: 2 ml Whole blood or serum [See venipuncture procedure, Section II](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: NA. For Universal rejections, see page I-7.

Methodology: EIA- Rubella and HIV; RPR- Syphilis

Add. Information:

CPT Code: Syphilis - 86592; Rubella – 86762; HIV-86701

PRENATAL PANEL

Available only to DHEC clinics

Synonyms: Initial screen includes Syphilis, Rubella, Hep B surface antigen, ABO, Rh and AB screen , plus HIV and CBC if requested

Test Section: Diagnostic Serology 803-896-0811 and Clinical labs sections 803-896-0954

Days Test Performed: Monday - Friday

Request Form: DHEC 1336, Test #3000

Special Instructions: For AB screen- separate serum from clot if transport time > 48 hours; if repeat testing is required, mark individual test

Specimen & Volume: 2 x 7 ml whole blood **AND** 7 ml EDTA anticoagulated whole blood

Container: 2 red-top and 1 lavender top vacuum tubes; Do **not** use serum separator

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Serum separator tube used for EDTA collection.. For Universal rejections, see page I-7.

Methodology: EIA- HBsAg ,HIV-1, and Rubella.; RPR-Syphilis; Hemagglutination-ABO; and Rh; Antiglobulin test- AB Screen; Automated cell counter- CBC

Add. Information: Reference values are printed on results report.

CPT Code: 80055 for panel of tests

PSEUDOMEMBRANOUS COLITIS- See *C. Difficile*

PVA PRESERVED FECAL SPECIMEN - See "Trichrome Stain"

RABIES EXAMINATION

NOTE: The Bureau of Laboratories is the only laboratory in S.C. which performs tests for rabies in animals. CDC performs all testing on human subjects. There is a special holiday and weekend on-call system for consultation and emergency testing that can be accessed by calling the main laboratory number, 896-0800.

Synonyms: NA

Test Section: - Virology, 803-896-0819

Days Test Performed: Monday- Saturday; Sunday and holidays if human exposure involved

Request Form: DHEC 1308, Test #26000

Special Instructions: Contact the local county health department for information on specimen collection and shipping instructions; **Confirmation is a postmortem procedure;** Because standard procedure currently requires the examination of brain tissue, the suspect animal must either be sacrificed or have died before the examination can be performed; All county health departments maintain containers appropriate for shipping specimens for examination, information on the management of animals suspected of being rabid, and to obtain vaccine for persons exposed to a rabid animal after consultation with the state epidemiologist

Specimen & Volume: Brain tissue

Container: ship whole animal head

Storage/Shipping Temperature: Keep cold; See special instructions above

Shipping Description: Diagnostic specimen; See special instructions above

Rejection Criteria, specific: No brain tissue or tissue decomposed or grossly contaminated. For Universal rejections, see page I-7.

Methodology: Fluorescent Antibody (FA)

Add. Information: Reported as positive or negative; All positive reports are called directly to the county health department, or after regular working hours, to the county environmentalist who submitted the specimen

CPT Code: NA

RESPIRATORY VIRUS CULTURE

Synonyms: Battery of tests includes culture for Influenza A & B, Parainfluenza I, II, III, Adenovirus and Respiratory Syncytial (RSV) from a single specimen..

Test Section: Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1337, Test #27000

Special Instructions: NA

Specimen & Volume: Throat swab [See respiratory virus culture collection procedure, Section II.](#)

Container: Screw capped tube of viral transport media (Available upon request)

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs within 24-48 hours. If shipping is delayed more than 48 hours, freeze at -70°C and ship on dry ice

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen not cold on arrival; calcium alginate swab used for collection. For Universal rejections, see page I-7.

Methodology: Culture

Add. Information: NA

CPT Code: Culture, 87252; Identification, 87253

RH FACTOR- See Prenatal Testing

RPR - See "Syphilis Serology (STS)"

RICKETTSIAL SEROLOGY (RMSF, MT)

Synonyms: Rocky Mt. Spotted Fever / Murine Typhus serology

Test Section: Virology, 803-896-0819

Days Test Performed: Monday, Wednesday, and Friday

Request Form: DHEC 1301, Test # 021 (RMSF) and 028 (MT)

Special Instructions: Acute & convalescent sera needed, convalescent should be taken three weeks after onset of disease

Specimen & Volume: 5 ml whole blood or 1 ml serum [See Venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: NA. For Universal rejections, see page I-7.

Methodology: Indirect Fluorescent Antibody (IFA)

Add. Information: Interpretation: Single titers of 1:64 are considered borderline; Titers may be low or negative (1:64 or lower) if specimen was collected earlier than 10 days after onset; A 4-fold rise between paired sera is diagnostically significant

CPT Code: 86757 each titer

RINGWORM- See Fungal culture

RUBELLA SEROLOGY- IgG and IgM

Synonyms: German measles antibody, rubella immune screen, rubella IgG., and IgM

Test Section: IgG-Chemistry 803-896-0891; IgM- Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1336 - Prenatal screen for IgG; DHEC 1301 - Immunology, Test # 006
For IgM, Test # 005 IgG

Special Instruction: Call prior to sending specimen for IgM-Virology, 896-0819
Rubella IgG does not require calling

Specimen & Volume: 2 ml whole clotted blood, or 1 ml serum or plasma

Container: Red top vacuum tube. [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: NA

CPT Code: 86762 (each immunoglobulin)

RUBEOLA VIRUS SEROLOGY-IMMUNE STATUS

Synonyms: Measles IgG

Test Section: Virology, 803-896-0819

Days Test Performed: Once/Week

Request Form: DHEC 1301, Test #13200

Special Instructions: NA

Specimen & Volume: 5 ml whole clotted blood or 2 ml serum

Container: Red top vacuum tube [See Venipuncture procedure , Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature.

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: Used to determine immune status of patient

CPT Code: 86765

RUBEOLA SEROLOGY –DIAGNOSTIC

Synonyms: Measles IgM

Test Section: Virology, 803-896-0819

Days Test Performed: Upon request

Request Form: DHEC 1301, Test #11100 (specify IgM if test number not on form)

Special Instructions: Call Virology (896-0819) prior to sending specimen

Specimen & Volume : 5 ml whole clotted blood or 2 ml serum

Container: Red top vacuum tube [See Venipuncture procedure , section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: Used in Diagnosis of measles and used during possible outbreaks; IgM antibodies usually appear 3-5 days after onset of rash

CPT Code: 86765

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for future expansion**

SARS-(SEVERE ACUTE RESPIRATORY SYNDROME)

Note: By special arrangement only. Contact DHEC District Epidemiology coordinator for information on meeting case definition criteria before collecting or submitting specimen.

Synonyms: SARS-CoV, SARS Coronavirus

Test Section: Molecular Epidemiology section, 803-896-0825

Days Test Performed: As required

Request Form: DHEC form 1337., Viral Isolation. Form will be sent upon test approval. Write in SARS PCR under test requested. Can also request influenza isolation on same swab if submitted in influenza or viral transport media.

Special Instructions: Use Dacron swab only..DO NOT use Calcium Alginate swab or swab with wooden shaft.

Specimen & Volume: One Nasal or oropharyngeal swab, tracheal aspirate

Container: Submit swab dry in 50 ml. conical tube or in tube of viral or Influenza transport media

Storage/Shipping Temperature: Store in refrigerator. Ship cold with cold packs.

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Calcium Alginate swab used; swab with wooden shaft used; specimen not cold on arrival. For Universal rejections, see page I-7.

Methodology: Real time Reverse Transcriptase PCR (RT-PCR)

Add. Information: Same swab can be used for Influenza isolation if swab shipped in Influenza or Viral transport media.

CPT Code: Isolation 838890; Amplification 83898; Reverse Transcriptase 83902.

SALMONELLA - See "Enteric Pathogens culture"

SCABIES

Synonyms: Mites, Sarcoptes scabiei

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #41000

Special Instructions: Place skin scrapings in 1-2 drops of mineral oil on a glass slide and cover with a cover slip

Specimen & Volume: Skin scrapings from infected area [See collection procedure for scabies, Section II](#)

Container: Cardboard slide mailer in biohazard bag.

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Too much oil used (several drops is too much). For Universal rejections, see page I-7.

Methodology: Microscopic examination

Add. Information: Detection of scabies

CPT Code: 87210

SCHISTOSOME ANALYSIS

Synonyms: *Schistosoma haematobium*, urine for parasites

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Specimen & Volume: 15-20 ml Urine

Container: Clean, dry, screw-capped tube

Request Form: DHEC 1334, Test #41000

Special Instructions: Collect last 15-20 ml of forced morning urine sample

Storage/Shipping Temperature: Store and ship at Room temperature,

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Stool submitted. For Universal rejections, see page I-7.

Methodology: Microscopic examination

Add. Information: Used to detect the presence of *Schistosoma haematobium* in urine

CPT Code: 87177

SCHISTOSOMIASIS SEROLOGY - See "Parasite Serology"

SHIGELLA - See "Enteric Pathogens Culture"

SICKLE CELL - See "Hemoglobin Electrophoresis"

SPOROTRICHOSIS SEROLOGY

Synonyms: NA

Test Section: Referred to CDC Mycoses Immunodiagnostic laboratory. 404-639-3469

Days Test Performed: Referred to CDC

Request Form: CDC form

Special Instructions: NA

Specimen & Volume: 5 ml Whole clotted blood or 2 ml serum

Container: Red top vacuum tube [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: NA

Add. Information: NA

CPT Code: NA

STAPHYLOCOCCUS- See "Enteric Pathogens Culture", or Aerobe referred for ID

ST. LOUIS EQUINE ENCEPHALITIS - See "Arbovirus Serology"

STREPTOCOCCUS GROUP B - See ‘ Beta-hemolytic Streptococcus, group B culture.’

STREPTOCOCCUS PYOGENES (GROUP A) See ”Beta-Hemolytic Strep, group A”

SUSCEPTIBILITY TESTING - See "Mycobacterial Susceptibility "

SYPHILIS SEROLOGY SCREEN

Synonyms: RPR, Non-Treponemal Antibody.

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Monday - Friday

Request Form: DHEC 1359(Rev. 2/02), Test #001 or Test #235, Prenatal screen- Form 1336 Test #205

Special Instructions: NA

Specimen & Volume: 2 ml whole clotted blood or 1 ml serum

Container: Red top vacuum tube [See Venipuncture procedure Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature; Specimen must arrive within 3 days of collection

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria: Plasma specimen; more than 24 hours old. For Universal rejections, see page I-7.

Methodology: RPR

Add. Information: Quantitation performed on positives

CPT Code: 86592

T4 LYMPHOCYTES - See "Lymphocyte Subset"

TB CULTURE - See "Mycobacterial Culture"

TETRAHYDROCANNABINOL (THC) (MARIJUANA) See Cocaine & Marijuana Screen and Drugs of Abuse Screen, Urine

THERAPEUTIC DRUG SCREEN- See Anticonvulsant Drug Monitoring

THYROID PANEL

NON-NEONATAL AND CONFIRMATORY NEONATAL

Synonyms: Total T4, T3 Uptake, TSH

Test Section: Clinical labs, Clinical Chemistry unit, 803-896-0891

Days Test Performed: Monday - Friday

Request Form: DHEC 1341, Test #91500; #91501 Total T4; #91502 T3 Uptake; #91503 TSH; #91505 FTI (Free Thyroxine index), # 91504 Free T 4

Special Instructions: NA

Specimen & Volume: 1-2 ml serum [See Venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage/Shipping Temperature: Store and ship at room temperature.

Shipping Description: Diagnostic specimen. [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: Enzyme Immunoassay Assay (EIA)

Use/Add. Information: NA

CPT Code: T4-84436; T3-84479; TSH-84443, Free T4, 84439

TP-PA SEROLOGY

Synonyms: MHA-TP

Test Section: Diagnostic Serology, 803-896-0811

Days Test Performed: Twice weekly. Usually Monday and Thursday

Request Form: DHEC 1359(Rev 2/02), Test # 002 and Test # 004

Special Instructions: NA

Specimen & Volume: 0.5 ml serum [See Veniuncture procedure, Section II, if needed](#)

Container: Red top Vacutainer

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific None. For Universal rejections, see page I-7.

Methodology: Particle Agglutination

Add. Information: Used to determine the stage of infection; Not a screening test
Reactive test is usually reactive for life (85% of cases)

CPT Code: 86781

TORCH BATTERY

No longer available as battery. see individual tests

CMV IgG -test, #10800 for immune status, test #13900 for diagnostic.

Herpes I and II test #10900 for immune status, test #13600 for diagnostic.

Rubella IgG, test #10500 for immune status, test #10600 for diagnostic.

Toxoplasmosis Serology is not offered.

TOXOCARA - See "Parasite Serology"

TOXOPLASMA SEROLOGY- See "Parasite Serology"

TREPONEMAL ANTIBODY SEROLOGY See TP-PA

TRICHINOSIS - See "Parasite Serology"

TRICHROME STAIN

Synonyms: Giardia stain, Amoeba (stool exam), Trophozoite stain

Test Section: Bacteriology/Parasitology, 803-896-0804

Days Test Performed: Monday - Friday

Request Form: DHEC 1334, Test #40200

Special Instructions: PVA specimen preferred; Fresh specimen less than 1 hour old accepted

Specimen & Volume: "Walnut" size formed stool or 2 tbsp liquid specimen mixed well in PVA, or LV-PVA preservative

Container: Leak-proof screw-cap tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Inadequate mixing of stool and preservative; stool preserved in 10% formalin, SAF, or MIF; fresh stool specimen more than 1 hour old. For Universal rejections, see page I-7.

Methodology: Microscopic examination of stained smears

Use/Add. Information: Used to detect protozoan cysts and trophozoite stages

CPT Code: 88313

TUBERCULOSIS CULTURE - See "Mycobacterial Culture"

TULAREMIA SEROLOGY

Synonyms: NA

Test Section: Referred to CDC

Days Test Performed: NA

Request Form: CDC Form

Special Instructions: Contact Bacteriology/Parasitology, 803-896-0805

TULAREMIA SEROLOGY, Cont.

Specimen & Volume: 2 ml Whole blood or serum

Container: Red top vacuum tube [See Venipuncture procedure, Section II, if needed](#)

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: NA

Add. Information: Interpretation printed on CDC report

CPT Code: 86000

URINALYSIS:

Test available only in Columbia area when specimen can be delivered directly to the laboratory

Synonyms: NA

Test Section: Clinical Laboratories Section, Hematology Unit 803-896-0954

Days Test Performed: Monday-Friday

Request Form: DHEC 1357, Test # 774

Special Instructions:

Specimen& Volume: 10 ml “clean catch” Urine

Container: Plastic urine container

Storage/Shipping Temperature: Not suitable for shipping; Must be delivered to lab

Shipping Description: NA. Do Not ship

Rejection Criteria, specific: Greater than 6 hours old. For Universal rejections, see page I-7.

Methodology: Includes microscopic and biochemical examinations

Use/Add. Information: Reference values: sp. Gravity 1.005-1.030, pH 5.0-8.0, other biochemicals negative, microscopic variable but essentially free of cellular and crystalline elements

CPT Code: 81000

URINE DRUG ANALYSIS- See Drugs of Abuse Screen, urine

URINE LEAD ANALYSIS- See Lead, Urine

VARICELLA VIRUS CULTURE

Synonyms: Chickenpox

Test Section: Virology, 803-896-0819

Days Test Performed: Monday - Friday

Request Form: DHEC 1337, Test #27000

Special Instructions: Write Varicella in block on form for Disease Suspected

Specimen & Volume: Vesicle fluid

Container: Screw capped tube of viral transport media (Available upon request)

Storage/Shipping Temperature: Store in refrigerator; Ship cold with cold packs; Ship within 24 hours after collection

Shipping Description: Diagnostic specimen. [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen more than 24 hours old when received; Specimen not cold on arrival. . For Universal rejections, see page I-7.

Methodology: Cell culture

Add. Information: NA

CPT Code: Culture, 87252; Identification, 87253

VARICELLA VIRUS SEROLOGY

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Once/Week

Request Form: DHEC 1301, Test #11000 for Immune Status; Test #13700 for Diagnostic.

Special Instructions: Please call Virology, 896-0819 prior to sending specimen from a pregnant patient who has been exposed to varicella

Specimen & Volume: 5 ml. whole blood or 2 ml serum; Single specimen for immune status, paired specimens for diagnostic [See venipuncture procedure, Section II, if needed](#)

Container: Red top vacuum tube

Storage /Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: None. For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: Interpretation: Immune status: Positive, negative or equivocal; Diagnostic results are positive, negative or equivocal with comment attached when needed indicating current infection.

CPT Code: 86787

VDRL

Test only performed on CSF.

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: Once a week

VDRL, Cont.

Request Form: DHEC 1359, Test #203

Special Instructions: None

Specimen & Volume: 0.5ml -1.0 ml CSF only

Container: CSF collection tube

Storage/Shipping Temperature: Store and ship at room temperature

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Blood submitted. For Universal rejections, see page I-7.

Methodology: Slide flocculation

Add. Information: Interpretation: Reactive or non-reactive

CPT Code: 86592

VIBRIO - See Enteric Pathogens Culture

VIRAL CULTURE- See individual viral groups ie enterovirus or respiratory virus culture, or individual virus, ie Herpes, Influenza CMV, Varicella culture

VIRAL ISOLATE FOR IDENTIFICATION

Synonyms: Referred culture for ID

Test Section: Virology, 803-896-0819

Days Test Performed: Monday-Friday

Request Form: DHEC 1337, Test #27500

Special Instructions: None

Specimen & Volume: Tissue Culture Isolate

Container: Screw capped culture tube

Storage/Shipping Temperature: Store and ship at room temperature. Please call prior to shipping so needed culture materials can be obtained. 803-896-0820

Shipping Description: Infectious substance [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: non-viable culture submitted. .For Universal rejections, see page I-7.

Methodology: Virus Neutralization, Hemagglutination inhibition

Add. Information: NA

CPT Code: 87253

VIRAL LOAD - See HIV-1 PCR Quantitative (RNA)

VISCERAL LARVA MIGRANS - See "Parasite Serology"

WEST NILE VIRUS SEROLOGY- IgG/IgM

Synonyms: NA

Test Section: Virology, 803-896-0819

Days Test Performed: As needed

Request Form: DHEC 1301, Test # 117 (Write West Nile in blank space)

Special Instructions: IgG and IgM on serum specimens. IgM only on CSF.

Specimen & Volume: CSF or 2 ml serum

Container: Sterile vacuum tube or Appropriate tube for CSF collection

Storage/Shipping: Temperature: please call prior to shipping (803- 896-0819)

Shipping Description: Diagnostic specimen [See packing and shipping instructions, Section IV](#)

Rejection Criteria, specific: Specimen taken too early For Universal rejections, see page I-7.

Methodology: EIA

Add. Information: None

CPT Code: 86790

WESTERN EQUINE ENCEPHALITIS - See "Arbovirus Serology"

WHOOPING COUGH - See "*Bordetella pertussis*"

YEAST - See "Fungal Culture"

YERSINIA - See ‘ Enteric Pathogens Culture’

